

REMARKS

The Office Action

Claims 1-6, 9, 10, and 21 are pending and examined in the present Office Action. Claims 1-6, 9, 10, and 21 are objected to for informalities. Claims 1-6, 9, 10, and 21 are rejected under 35 U.S.C. § 112, first paragraph for lack of enablement. Claim 5 is rejected under 35 U.S.C. § 112, second paragraph for being indefinite. Claims 1-6, 9, and 21 are rejected under 35 U.S.C. § 102(e). Claims 1 and 10 are rejected under 35 U.S.C. § 103(a). Applicants address each of these rejections below.

Information Disclosure Statement

The Office acknowledges receipt of the Information Disclosure Statement mailed on October 16, 2002, but indicates that it has not considered the reference Reichel et al. (Ophtalmologe 1999, 96:570-577; hereafter “Reichel”) because it is in the German language and a concise explanation of its relevance was not included. To comply with 37 C.F.R. § 1.98(a)(3), Applicants submit herewith a Supplemental Information Disclosure Statement, resubmitting the Reichel reference as well as its English translation. Applicants respectfully request that Reichel now be considered.

In this same Information Disclosure Statement, the Examiner has also refused to consider Baffi et al. (IOVS 1998, 39:S719; hereafter “Baffi”) for failure to comply with 37 C.F.R. § 1.98(a)(2), which requires that a legible copy of a reference be provided to the Office. The Examiner further objected to Baffi because the citation did not fully comply with 37 C.F.R. § 1.98 as the author of the article was not listed on the PTO-1449.

Applicants have submitted a legible copy of Baffi in the present Supplemental Information Disclosure Statement and a full citation for the reference on the accompanying Form PTO-1449. Applicants respectfully request that Baffi now be considered.

Objection to the Specification

The Office objects to the specification as failing to include the headings for several sections as provided in 37 C.F.R. § 1.77(b). In response to this objection, the specification has been amended to include all appropriate headings. The objections to the specification may be withdrawn.

Claim Objections

Claims 1-6, 9, 10, and 21 were objected to for being in improper grammatical form for dependent claims. Applicants have amended claims 2-6 and 10 as suggested by the Examiner; claims 1, 9, and 21 are independent claims and require no amendment. This objection may be withdrawn.

Claims 4, 5, 6, 10, and 21 were further objected to as including improper Markush language according to M.P.E.P. § 2173.05(h). Applicants submit that these objections have been overcome by the present claim amendments.

Rejection under 35 U.S.C. § 112, first paragraph

Claims 1-6, 9, 10, and 21 stand rejected under 35 U.S.C. § 112, first paragraph for lack of enablement on the basis that “the specification, while being enabling for a pigment epithelial cell of the eye comprising an adenoviral vector with large DNA capacity comprising a nucleic acid operatively linked to a promoter, does not reasonably provide enablement for a pigment epithelial cell of the eye comprising an adenoviral vector with large DNA capacity lacking a promoter operatively linked to a nucleic acid.”

While Applicants do not agree with the Office’s basis for the enablement rejection, claim 1 has been amended to require “at least one expressed nucleic acid operatively linked to a promoter.” As claims 2-6, 9, 10, and 21 are dependent on claim 1, the

rejection may be withdrawn for all claims.

Rejection under 35 U.S.C. § 112, second paragraph

Claim 5 is rejected under 35 U.S.C. § 112, second paragraph as being indefinite. The Examiner states that claim 5 is incomplete for omitting essential elements, the omitted element being “a nucleic acid encoding a protein operatively linked to a promoter in the adenoviral vector.” Applicants have amended claim 1, from which claim 5 depends, to include this feature, and the rejection of claim 5 is therefore moot and may be withdrawn.

Rejection under 35 U.S.C. § 102(e)

Claims 1-6, 9, and 21 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Kovesdi et al., (U.S. Patent Application Publication No. 2003/0045498; hereafter “Kovesdi”). This rejection is respectfully traversed.

M.P.E.P. § 2131 states:

a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently, described in a single prior art reference.

Applicants assert that Kovesdi does not satisfy this standard for anticipation because it fails to describe each and every element of the rejected claims. Claim 1, from which claims 2-6, 9, and 21 depend, requires “an adenoviral vector with large DNA capacity,” and it is stated in the specification, at page 6, lines 14-15, that “an adenoviral vector of large DNA capacity is understood by the skilled worker to be adenoviruses which comprise *no viral coding DNA sequences*” (emphasis added). Kovesdi discloses an adenoviral vector that is deficient for the E1, E2, E3, and E4 viral coding DNA regions (Page 4, paragraphs 0028 and 0029), but not the L region of the adenoviral genome. As the Kovesdi vector contains the adenoviral L region, Kovesdi does not disclose an adenoviral vector with “large DNA capacity,” as defined by the present specification and

as required by the present claims. Kovesdi therefore fails to anticipate any of claims 1-6, 9, or 21, and Applicants respectfully request that the rejection of these claims under 35 U.S.C. § 102(e) be withdrawn.

Rejections under 35 U.S.C. § 103(a)

Claims 1 and 10 stand rejected under 35 U.S.C. § 103(a) for obviousness over Kovesdi in combination with either Tezel et al. (Exp. Eye Res. 1998, 66:807-815; hereafter “Tezel”), or Funk et al. (U.S. Patent No. 6,667,176; hereafter “Funk”) and Williams et al. (Nature 1988, 336:684-687; hereafter “Williams”). This rejection is respectfully traversed.

M.P.E.P. § 2142 states:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant’s disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q. 2d 1438 (Fed. Cir. 1991).

This standard for obviousness has not been met in the present case as the combination of references cited by the Office does not teach or suggest all of the limitations of the claimed invention. Claim 1, as indicated above, is directed to a pigment epithelial cell of the eye comprising vector DNA of an adenoviral vector with large DNA capacity, and claim 10 is directed to a method of producing such vector-containing pigment epithelial cells by cultivating them in serum-free medium or in the presence of a feeder layer. The Office has cited Kovesdi in combination with Tezel, Funk, or Williams as teaching the components of these claims. As detailed above, however, Kovesdi lacks

an important element of the present claims. Although Kovesdi teaches an adenoviral vector deficient for *some* viral coding DNA sequences, it does not teach an adenoviral vector deficient for *all* viral coding DNA sequences. Therefore, Kovesdi does not disclose an adenoviral vector with "large DNA capacity," as required by claims 1 and 10.

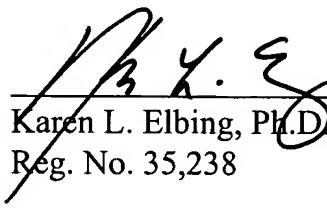
The secondary references, Tezel, Funk, and Williams, do not provide the teaching missing from the Kovesdi reference. None of these references discloses an adenoviral vector lacking all viral coding sequences, as required by claims 1 and 10. The cited references therefore cannot and do not support a *prima facie* case of obviousness for either claim 1 or 10. The rejection of these claims under § 103 may be withdrawn.

CONCLUSION

Applicants submit that the claims are now in condition for allowance, and such action is respectfully requested. Enclosed are a petition to extend the period for replying for two months, to and including August 9, 2004, a check for \$210.00 for the required petition fee and a check for \$70.00 for excess claims fees. If there are any additional charges or any credits, please apply them to Deposit Account No. 03-2095.

Respectfully submitted,

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